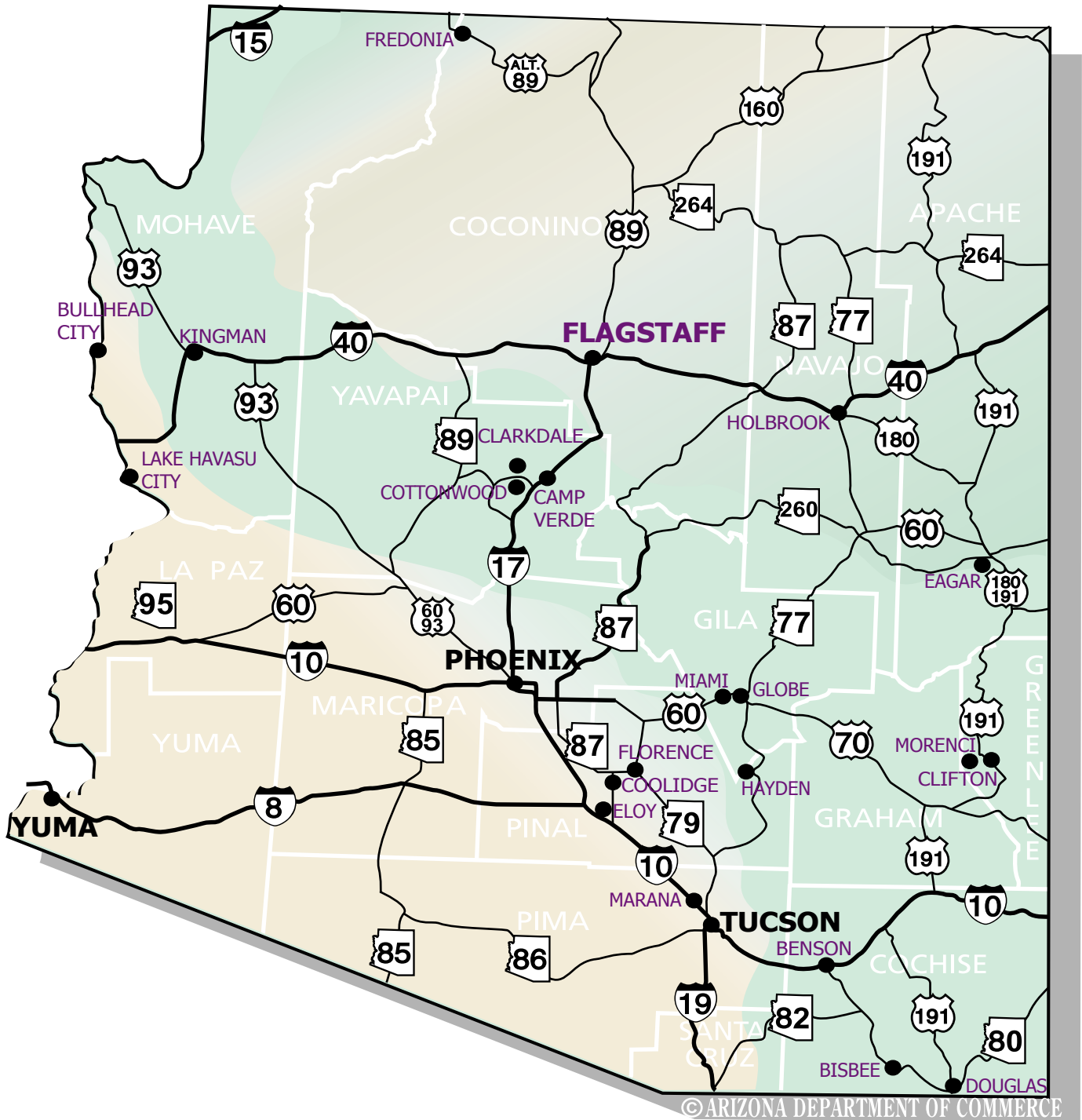


# ARIZONA RECYCLING COMMUNITIES

Click on city name for program details



## **Benson**

Benson is located in southeastern Arizona on Interstate 10 about 45 miles southeast of Tucson. As of 1999, it had over 4,600 residents. Benson was founded as a stop along the Southern Pacific Railroad, and for much of its history, it served as southern Arizona's main railroad hub. Today, Benson has a diverse economy, and it has become a very important center for retirement. Tourists contribute a great deal to local businesses as well. Retail trade, services, construction, and utilities are the biggest employment sectors. Due to Benson's location on Interstate 10 and the Union Pacific Railway, transportation employment is also significant. Many residents commute to Tucson or Sierra Vista for employment.

Over 75% of Benson's population is white, although it has a sizeable Hispanic minority (21% of the total). The average household size is only 2.35. Over 25% of all residents are of retirement age. Less than 70% of its 1990 population lived in Cochise County in 1985. Benson has one of the lowest labor force participation rates in the state. Almost 45% of households receive social security income, and over 20% of households have retirement income. About 37% of the occupied housing units in the city are mobile homes or trailers.

### **Waste Stream Characterization**

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Benson's economy is most like the community of Patagonia. A waste characterization study performed in Patagonia indicates that Benson can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Benson generates 3,873.05 tons of solid waste per year. By weight, almost 20% of the waste is paper, newspaper, cardboard and magazines, about 7% is plastic, 8% is glass and 4% is metal. Wood and construction/ demolition materials together account for slightly over 2% of the solid waste. Yard and food waste make up over 30% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	30.62%	1,185.93	45.18%	26,319.64	13,159.82
Plastic	6.73%	260.66	22.34%	13,014.18	6,507.09
Glass	7.88%	305.20	2.85%	1,660.27	830.13
Metal	3.43%	132.85	4.23%	2,464.19	1,232.09
Food/Organics	31.83%	1,232.79	12.21%	7,112.94	3,556.47
Wood	.40%	15.49	.18%	104.86	52.43
Constr./Demo.	1.82%	70.49	1.24%	722.36	361.18
Other	17.29%	669.65	11.77%	6,856.62	3,428.31
<b>TOTAL</b>	<b>100%</b>	<b>3,873.05</b>	<b>100%</b>	<b>58,255.06</b>	<b>29,127.53</b>

### **Recycling**

Benson has several drop-off locations for recyclables. Aluminum cans, tin cans newspaper, cardboard, and white paper are collected by Sierra Huachuca Adult Retarded Citizens (S.H.A.R.C.) and taken to its sheltered workshop in Benson where the recyclables are processed by developmentally disabled clients. S.H.A.R.C. also accepts cardboard, newspaper, aluminum cans and white paper for processing at its Benson location. #2 HDPE plastic bags, phone books, scrap metal and household batteries can be dropped off at other locations in the city for recycling. The county accepts tires, car batteries, used motor oil, antifreeze, and old appliances at the transfer station. Holiday trees collected by the city every year in a special event drop-off program are made into mulch.

<b>Recycling Material</b>	<b>Tons/YR</b>	<b>% VOL</b>
Newspaper	135.62	7.0316516
Cardboard	1,051.59	54.523039
Office Paper	20.12	1.0431856
Other Paper	3.17	0.1643588
Yard Waste	685.71	35.553045
Christmas Trees	0.83	0.0432068
Aluminum	2.75	0.1425825
HHW Collections	12.58	0.6522502
Miscellaneous	16.28	0.8440885
OTR Tires	0.05	0.0025924
<b>Total Diverted</b>	<b>1,928.71</b>	<b>100</b>

## Bisbee

Bisbee is located in the southern portion of Cochise County, near the Mexican border, and is the county seat of Cochise County. Its population in 1999 was 6,525. Throughout its history, Bisbee has been a mining town, and in the early 1900's, it was the largest city between St. Louis and San Francisco. The population began to shrink as the mines played out and Prohibition was enforced. Today, Bisbee has evolved into an artist and retirement community. Tourism is very important as well. The government sector employs a great deal of people at generally high wage rates. In addition, many residents commute to jobs in nearby Sierra Vista or at Fort Huachuca.

Bisbee is a fairly ethnically diverse community. About 62% of the population is white, 35% is Hispanic, and 1% is Native American. More than 20% of its residents are age 65 or over and the average household is small (2.34 persons). Education levels in Bisbee are fairly high. Almost 25% of the population age 18 and over holds a college degree. The median household income is fairly low, but the per capita income is moderately high. Supplemental income sources are important for the residents of Bisbee. Over 35% of households receive social security income, while 28% have interest, dividend, or net rental income, and 27% receive retirement income. Only 4% of the occupied housing units are mobile homes or trailers. Interestingly, the median home value in Bisbee is low.

### Waste Stream Characterization

Based on the demographics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Bisbee is most like the community of Willcox. A waste characterization study performed in Willcox indicates that Bisbee can expect to have the materials in their waste stream listed in the table below.

It is estimated that Bisbee generates 3,328.17 tons of solid waste per year. By weight, approximately ¼ of the waste is paper, newspaper, cardboard and magazines, almost 10% is plastic, less than 5% is glass and less than 5% is metal. Wood and construction/demolition materials together account for slightly over 2% of the solid waste. Yard and food waste account for over 1/3 of the waste. For a more detailed analysis of each item of solid waste, click on the chart at [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	25.90%	862.00	39.52%	17,684.82	8,842.41
Plastic	8.10%	269.58	27.67%	12,382.06	6,191.03
Glass	6.28%	209.01	3.64%	1,628.86	814.43
Metal	4.63%	154.09	6.71%	3,002.66	1,501.33
Food/Organics	36.50%	1,214.78	10.70%	4,788.15	2,394.07
Wood	.55%	18.30	.24%	107.40	53.70
Constr./Demo.	1.59%	52.92	.31%	138.72	69.36
Other	16.45%	547.48	11.21%	5,016.37	2,508.18
TOTAL	100%	3,328.17	100%	44,749.03	22,374.51

## Recycling

Bisbee has several drop-off locations for recyclables. Newspaper, white paper, cardboard and aluminum cans can be taken to the county transfer station. Newspaper, magazines and aluminum cans can also be dropped off at one school and three commercial establishments. The county transfer station also accepts tires, car batteries, used motor oil, antifreeze and old appliances, and a bin placed behind the transfer station accepts aluminum cans.

According to the “1999 State of Arizona Recycling Program Annual Report” prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Bisbee recycles the following:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Yard Waste	112.78	150.00
Steel	7.00	25.00
<b>TOTAL DIVERTED</b>	<b>119.78</b>	<b>175.00</b>

The report relates that Bisbee has a diversion rate of 1.68%. (Data based on FY 1996 figures estimates the diversion rate to be .02%, so diversion rates have increased dramatically in three years.) The operational costs for its recycling program reported by Bisbee in FY 1999 were \$60,000. No revenues were reported as being received by the recycling program. Avoided costs were estimated to be \$8,073.

According to figures reported in 2002 by the ADEQ Bisbee’s recycling has shown continued increase. Using FY2002 figures, Bisbee recycles the following:

<b>Material</b>	<b>Tons/YR</b>	<b>% Vol</b>
Newspaper	88.88	4.7569374
Cardboard	964.97	51.646061
Office Paper	32.18	1.7223025
Other Paper	18.93	1.0131506
Yard Waste	714.29	38.229213
Christmas Trees	0.58	0.0312205
Aluminum	1.67	0.0893799
HHW Collections	6.23	0.3334352
Miscellaneous	20.35	1.0891503
Passenger Tires	17.29	0.9253763
OTR Tires	0.06	0.0032113
Truck Tires	3	0.1605627
<b>Total Diverted</b>	<b>1,868.43</b>	<b>100%</b>

## **Bullhead City**

Bullhead City is an extremely fast growing city in the northwest part of the state. It is located on the Colorado River directly across from Laughlin, Nevada. It has almost tripled in size since 1980. Its population in 1999 was 29,315. Its economy is very unique among Arizona communities, as it is almost entirely dedicated to serving the gaming industry in Laughlin. Laughlin employs over 14,000 people, most of whom live in Bullhead City. In addition to labor, Bullhead City provides most of the retail and service firms for the region. These establishments serve the huge number of tourists and retirees who visit as well as the residents of much of northwestern Arizona. Over 55% of the total workforce is employed in the service sector. Construction is also a very important sector.

Bullhead City's population is over 90% white. Households are fairly small with an average of 2.49 persons, and 20.9% of the residents are age 65 or over. Bullhead City has a large number of new residents; only half of its 1990 population lived in Mohave County in 1985. Since many people work in Laughlin, Nevada, only 38% of Bullhead City's working residents are employed within the city limits. Levels of education and workforce participation are moderate, but incomes are high. Thirty-seven percent of households receive social security income, 34% of households have interest, dividend, or net rental income, and over 25% of households receive retirement income. Only 62% of the occupied housing units in the city are owner-occupied, and 57% of the occupied housing units are mobile homes or trailers. However, there are many expensive houses; the median home value is one of the highest in the state.

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Bullhead City's economy is most like the community of Parker. A waste characterization study performed in Parker indicates that Bullhead City can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Bullhead City generates 23,335.17 tons of solid waste per year. By weight, almost 7% of the waste is recyclable paper, newspaper, cardboard and magazines, about 6% is plastic, 6% is glass and 3% is metal. Wood and construction/demolition materials together account for slightly over 8% of the solid waste. Yard and food waste make up over 53% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at \_\_\_\_\_. For detailed information on the parameters of data used to arrive at these figures, please click on \_\_\_\_\_.

Bullhead Recycling provides a drop-off location for newspaper, cardboard, magazines, catalogues, aluminum cans and clear glass. Commercial establishments in the town accept used motor oil, car batteries, and rechargeable batteries.

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	13.75%	3,211.34	26.05%	67,673.70	33,836.85
Plastic	5.87%	1,370.95	23.37%	60,711.50	30,355.75
Glass	5.55%	1,296.21	2.50%	6,494.60	3,247.30
Metal	2.85%	665.62	5.12%	13,300.94	6,650.47
Food/Organics	53.17%	12,417.94	35.56%	92,379.15	46,189.57
Wood	.60%	140.13	.29%	753.37	376.69
Constr./Demo.	7.69%	1,796.01	1.23%	3,195.34	1,597.67
Other	10.52%	2,456.96	5.87%	15,249.31	7,624.66
<b>TOTAL</b>	<b>100%</b>	<b>23,355.17</b>	<b>100%</b>	<b>259,783.89</b>	<b>129,891.94</b>

## **Camp Verde**

Camp Verde is the oldest settlement in the Verde Valley and is located near the geographic center of Arizona. Its 1999 population was 8,690. Construction, trade, and services are the main economic activities in Camp Verde. Tourism is important, and the town is attracting increasing numbers of retirees.

Camp Verde is a predominantly white community, with only 11.6% of its population being non-white. Over 20% of the population is age 65 or over. As part of the regional system of the Verde Valley, only half of Camp Verde's workers are employed within the town limits. It has one of the lowest labor force participation rates in the state (43.9%). Almost half of all households receive social security income. Although the level of educational attainment is moderate, income levels are somewhat high. The per capita income is actually higher than the median household income, so Camp Verde probably has a few very wealthy residents. Eighty percent of its occupied housing units are owner-occupied, but 45% of all occupied units are mobile homes or trailers.

### **Waste Stream Characterization:**

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Camp Verde's economy is most like the community of Patagonia. A waste characterization study performed in Patagonia indicates that Camp Verde can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Camp Verde generates 6,432.80 tons of solid waste per year. By weight, almost 20% of the waste is paper, newspaper, cardboard and magazines, about 7% is plastic, 8% is glass and 4% is metal. Wood and construction/ demolition materials together account for slightly over 2% of the solid waste. Yard and food waste make up over 30% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at \_\_\_\_\_. For detailed information on the parameters of data used to arrive at these figures, please click on \_\_\_\_\_.

Camp Verde has a number of drop-off locations for its recyclables. Cardboard, newspaper, magazines, tin cans, aluminum cans, #1 PET plastic, #2 HDPE plastic, and brown, green and clear glass bottles are collected by Sedona Recycles in Sedona, Arizona and shipped to markets in \_\_\_\_\_. One grocery store accepts plastic grocery bags. Tires, white goods, used motor oil, automotive batteries and tires can be dropped off at the local transfer station.

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	30.62%	1,969.72	45.18%	43,714.61	21,857.31
Plastic	6.73%	432.93	22.34%	21,615.42	10,807.71
Glass	7.88%	506.90	2.85%	2,757.56	1,378.78
Metal	3.43%	220.65	4.23%	4,092.80	2,046.40
Food/Organics	31.83%	2,047.56	12.21%	11,813.98	5,906.99
Wood	.40%	25.73	.18%	174.16	87.08
Constr./Demo.	1.82%	117.08	1.24%	1,199.78	599.89
Other	17.29%	1,112.23	11.77%	11,388.25	5,694.12
<b>TOTAL</b>	<b>100%</b>	<b>6,432.80</b>	<b>100%</b>	<b>96,756.56</b>	<b>48,378.28</b>

### **Recycling**

Figures reported by the Arizona Department of Environmental Quality show that in FY2002 Camp Verde recycled the following:

<b>Camp Verde</b>	<b>Tons/YR</b>	<b>% VOL</b>
Newspaper	86.81	69.684791
Cardboard	15.48	12.425867
Christmas Trees	0.71	0.5685824
Aluminum	1.28	1.0270605
Steel	2.13	1.7065499
PET	0.85	0.6831016
HDPE	2.24	1.8012691
Glass	12.95	10.39
Tin	2.13	1.709761
<b>Total Diverted</b>	<b>124.58</b>	<b>100%</b>

## Clarkdale

Clarkdale is a town in the Verde Valley. In 1999, its population was 3,045. It was laid out in 1914 near the site of the Clarkdale smelter, which processed ore from the mines at Jerome. It developed as a service center for these and other nearby mines. Today, Clarkdale is a retirement town, and trade and services are the dominant sectors. Construction and manufacturing are also important to the local economy.

Clarkdale is almost 80% white. On average, households are fairly small at with an average of 2.44 persons per household. Almost 25% of the population is age 65 or over. Many residents have recently relocated to Clarkdale. Only 18% of the workforce is employed within the town limits. Education levels are extremely high. Over 40% of all households receive social security income, and almost 25% receive retirement income. Over 80% of the occupied housing units in Clarkdale are owner-occupied.

### Waste Stream Characterization Data

Based on the structure of the local economy and labor force characteristics from the report “A Description and Typology of Selected Arizona Places” prepared by the University of Arizona, Clarkdale’s economy is most like the community of Patagonia. A waste characterization study performed in Patagonia indicates that Clarkdale can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Clarkdale generates 2,466.54 tons of solid waste per year. By weight, almost 20% of the waste is paper, newspaper, cardboard and magazines, about 7% is plastic, 8% is glass and 4% is metal. Wood and construction/ demolition materials together account for slightly over 2% of the solid waste. Yard and food waste make up over 30% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	30.62%	755.25	45.18%	16,761.60	8,380.80
Plastic	6.73%	166.00	22.34%	8,288.05	4,144.03
Glass	7.88%	194.36	2.85%	1,057.34	528.67
Metal	3.43%	84.60	4.23%	1,569.31	784.66
Food/Organics	31.83%	785.10	12.21%	4,529.86	2,264.93
Wood	.40%	9.87	.18%	66.78	33.39
Constr./Demo.	1.82%	44.89	1.24%	460.04	230.02
Other	17.29%	426.46	11.77%	4,366.62	2,183.31
TOTAL	100%	2,466.54	100%	37,099.61	18,549.81

### Recycling

Only one drop-off location exists in this community. The Town Hall Complex accepts cardboard, newspaper, magazines, tin cans, aluminum cans, #1 clear plastics, #2

frosted and colored plastics, and brown, green and clear glass bottles. These recyclables are collected by Sedona Recycles in Sedona, Arizona and marketed in

\_\_\_\_\_.

The Arizona Department of Environmental Quality reported that in FY 2002, Clarkdale recycled the following:

<b>Material</b>	<b>Tons/YR</b>	<b>% Vol</b>
Newspaper	6.63	19.40582
steel	0.31	0.902971
PET	0.47	1.368359
HDPE	1.06	3.101127
Glass	17.71	51.83521
cardboard	6.63	19.40582
Tin	1.36	3.980682
Total Diverted	34.17	100%

## **Clifton/Morenci**

Clifton and Morenci are communities totaling about 5,300 people situated in the rugged eastern part of the state, about 35 miles from the New Mexico line. Clifton is the seat of Greenlee County. These communities are part of one of the oldest mining districts still operating in Arizona, with the second largest open-pit copper mine in the United States located in Morenci. Almost half of the employed population of Clifton and Morenci work at this huge mine. Clifton and Morenci are trade centers for tourists driving the popular Coronado Trail or touring the historic Chase Creek business district. While there are a large number of retail and service firms, they are not major employers.

Clifton and Morenci have a sizeable Hispanic population as well as a moderate percentage of people age 65 or over. Twenty-five percent of the population receives social security income. Less than half of Clifton's and Morenci's housing units are owner-occupied, and home values are low. However, incomes are extremely high due to the prominence of well-paying mining jobs.

## Coolidge

Coolidge is located in central Arizona. In 1999, its population was 7,405 residents. Until the 1950s, it was almost entirely dependent on agriculture and, to a lesser extent, mining. Farming is still extremely important to the area, with Coolidge being the commercial center of Arizona's cotton industry. However, retail trade and services are the biggest employment sectors today. Coolidge acts as a trade and service center for both the surrounding farms and travelers. Many manufacturing firms have located in the area. A large number of residents have government-sector jobs as well. Tourism and retirement are becoming more significant.

Coolidge is a very racially diverse place. Fifty-five percent of its residents are white, 32% are Hispanic, 8% are black, and 4% are Native American. A fair number of people (13% of the total) are of retirement age. Almost 90% of Coolidge's 1990 population lived in Pinal County in 1985. Less than half of its workers are employed within the city limits. Levels of education are very low, and incomes are moderately low. More than 35% of households have social security income. Many people live below the property level. Home values are low as well.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Coolidge's economy is most like the community of Willcox. A waste characterization study performed in Willcox indicates that Coolidge can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Coolidge generates 3,037.20 tons of solid waste per year. By weight, approximately 16% of the waste is recyclable paper, newspaper, cardboard and magazines, about 10% is plastic, 5% is glass, and 5% is metal. Wood and construction/demolition materials together account for slightly over 2% of the solid waste. Yard and food waste account for over 36% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	25.90%	786.63	39.52%	16,138.68	8,069.34
Plastic	8.10%	246.01	27.67%	11,299.53	5,649.76
Glass	6.28%	190.74	3.64%	1,486.46	743.23
Metal	4.63%	140.62	6.71%	2,740.15	1,370.07
Food/Organics	36.50%	1,108.58	10.70%	4,369.53	2,184.77
Wood	.55%	16.70	.24%	98.01	49.00
Constr./Demo.	1.59%	48.29	.31%	126.59	57.17
Other	16.45%	499.62	11.21%	4,577.80	2,288.90
TOTAL	100%	3,037.20	100%	40,836.74	20,418.37

## Recycling

The only drop-off location for recyclables in Coolidge is an auto store that accepts used motor oil and car batteries. Coolidge can design a recycling program around the estimated quantities of these materials. There are strong markets in Arizona for cardboard, newspaper, aluminum cans, magazines and mixed paper. These are the materials that can be most easily collected and marketed in a rural community. Even though other materials can be recycled, they are not economic because of processing costs, transportation costs and low prices. Yard waste can also be reused by chipping it into mulch or turning it into compost to be used in city parks, given to residents, or sold.

According to the "1999 State of Arizona Recycling Program Annual Report" prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Coolidge recycles the following:

MATERIAL	TONS	CUBIC YARDS
Other Paper	8.00	20.00
Other Metals	64.10	228.93
Steel	1.00	3.57
Miscellaneous*	30.00	218.18
TOTAL DIVERTED	103.10	470.68

\*Miscellaneous includes used tires, mattresses, box springs, asphalt, wire, cable, textiles, other fiber, toner cartridges, transparencies, construction debris, fluorescent light bulbs, carpet foam, decals, garbage cans and lawnmowers.

The 1999 report relates that Coolidge has a diversion rate of 4.1%. (Data based on FY 1996 figures estimates the diversion rate to be 7.05%, so diversion rates have fallen somewhat in three years.) No operational costs for its recycling program were reported by Coolidge in FY 1999. Revenues in the amount of \$683.40 were reported as being received by the recycling program. No avoided costs were estimated.

According to a FY 2002 report by the ADEQ, Coolidge's recycling has increased. It recycled the following in FY 2002:

Material	Tons/YR	% Vol
Newspaper	284.33	29.70828
Office Paper	558.46	58.34994
Cardboard	22.20	2.319555
Aluminum	1.06	0.110806
Steel	75.00	7.836336
PET/HDPE	1.03	0.107789
Miscellaneous	15.00	1.567267
Total Diverted	957.08	100%

## Cottonwood

Cottonwood is located in the Verde Valley of central Arizona. Its population has grown steadily over the past 20 years to a 1999 level of almost 8,845. Cottonwood is the main trade and service center for the Verde Valley, with a wide variety of retail establishments and professional services. A large number of people are also employed in the construction, wholesale trade and manufacturing sectors. Tourism is very important to the community, as is retirement.

Cottonwood has a very small average household size of 2.33. Over 85% of the population is white. One-quarter of its residents are age 65 or over. Cottonwood has many recent immigrants. Only 65% of its 1990 population lived in Yavapai County in 1985. Unlike other communities in the Verde Valley, a large percentage of its workers are employed within city limits. Its labor force participation rate is extremely low, and income levels are fairly low as well. Over 46% of all households receive social security income. Only about 55% of the occupied housing units in Cottonwood are owner-occupied.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Cottonwood's economy is most like the community of Patagonia. A waste characterization study performed in Patagonia indicates that Cottonwood can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Cottonwood generates 7,502.97 tons of solid waste per year. By weight, almost 20% of the waste is paper, newspaper, cardboard and magazines, about 7% is plastic, 8% is glass and 4% is metal. Wood and construction/ demolition materials together account for slightly over 2% of the solid waste. Yard and food waste make up over 30% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	30.62%	2,297.41	45.18%	50,987.07	25,493.53
Plastic	6.73%	504.95	22.34%	25,211.40	12,605.70
Glass	7.88%	591.23	2.85%	3,216.32	1,608.16
Metal	3.43%	257.35	4.23%	4,773.69	2,386.84
Food/Organics	31.83%	2,388.20	12.21%	13,779.37	6,889.69
Wood	.40%	30.01	.18%	203.14	101.57
Constr./Demo.	1.82%	136.55	1.24%	1,399.38	699.69
Other	17.29%	1,297.26	11.77%	13,282.82	6,641.41
TOTAL	100%	7,502.97	100%	112,853.18	56,426.59

### Recycling

Cardboard, newspapers, magazines, tin cans, aluminum cans, #1 PETplastic, #2 HDPE plastic, and brown, green and clear bottles can be placed at one drop-off location

in Cottonwood. These recyclables are collected by Sedona Recycles in Sedona, Arizona. They are processed and marketed to \_\_\_\_\_. Used motor oil, car batteries, rechargeable batteries, and scrap metals are also accepted at various commercial establishments in Cottonwood

According to the “1999 State of Arizona Recycling Program Annual Report” prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Cottonwood recycles the following materials:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Newspaper	60.00	150.00
Cardboard	6.00	16.00
Office Paper	.10	.25
Yard Waste	751.88	1,000.00
Holiday Trees	1.61	2.15
Aluminum	1.60	12.80
Steel	1.70	6.07
Other Plastic (not #1 PET or #2 HDPE)	4.00	22.54
Miscellaneous*	160.00	1,454.55
<b>TOTAL DIVERTED</b>	<b>986.89</b>	<b>2,664.36</b>

\*Miscellaneous includes used tires, mattresses, box springs, asphalt, wire, cable, textiles, other fiber, toner cartridges, transparencies, construction debris, fluorescent light bulbs, carpet foam, decals, garbage cans and lawnmowers.

The 1999 report relates that Cottonwood has a diversion rate of 23.85%. (Data based on FY 1996 figures estimates the diversion rate to be .09%, so diversion rates have increased dramatically in three years.) No operational costs or revenues for its recycling program or avoided costs were reported by Cottonwood in FY 1999.

According to the 2002 update of that report, Cottonwood recycled the following in FY 2002:

<b>Materials</b>	<b>Tons/YR</b>	<b>% Vol</b>
Newspaper	169.88	57.59962
Cardboard	21.04	7.13235
Christmas Trees	2.44	0.827897
Tin	5.9	2.000517
Aluminum	3.37	1.140973
Steel	5.90	1.999669
PET	2.20	0.746803
HDPE	4.81	1.630591
Glass	42.70	14.47967
Miscellaneous	36.69	12.44191
<b>Total Diverted</b>	<b>294.9238</b>	<b>100%</b>

## Douglas

Douglas is located along the Mexican border in the southeastern part of the state. The population of this city was 14,955 in 1999. It was founded in 1901 as the site for a copper smelter. Today, the smelter is no longer in operation, but ranching, the area's other main activity throughout this century, is still important. International commerce dominates Douglas' economy. People from Agua Prieta and much of northeastern Sonora come across the line to shop in Douglas. There is a strong maquiladora presence in Agua Prieta, and manufacturing is important on the United States side as well. In addition, Douglas serves tourists who come to the region to visit Mexico and to see the region's natural wonders.

Douglas is a predominantly Hispanic city (82% of the total). Households are large with the average number of people per household at 3.21. Over 70% of the working population is employed within the city. Over 50% of the population age 18 and over does not have a high school diploma. The labor force participation rate in Douglas is fairly low (49.7%). In addition, income levels are fairly low. Thirty-seven percent of households have social security income. Less than 3% of the occupied housing units in Douglas are mobile homes or trailers.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Douglas' economy is most like the community of Parker. A waste characterization study performed in Parker indicates that Douglas can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Douglas generates 7,502.97 tons of solid waste per year. By weight, almost 7% of the waste is recyclable paper, newspaper, cardboard and magazines, about 6% is plastic, 6% is glass and 3% is metal. Wood and construction/ demolition materials together account for slightly over 8% of the solid waste. Yard and food waste make up over 53% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	13.75%	1031.66	26.05%	26,780.01	13,390.01
Plastic	5.87%	440.42	23.37%	24,024.91	12,012.46
Glass	5.55%	416.41	2.50%	2,570.06	1,285.03
Metal	2.85%	213.83	5.12%	5,263.48	2,631.74
Food/Organics	53.17%	3,989.33	35.56%	36,556.52	18,278.26
Wood	.60%	45.02	.29%	298.13	149.06
Constr./Demo.	7.69%	576.98	1.23%	1,264.47	632.23
Other	10.52%	789.31	5.87%	6,034.50	3,017.25
TOTAL	100.00%	7,502.97	100.00%	102,802.35	51,401.18

## Recycling

The City of Douglas operates a drop-off recycling center that accepts newspaper, cardboard, white paper, tin cans, aluminum and green waste. The city also holds a special event drop-off for holiday trees. The green waste and holiday trees are used as firewood and mulch. Commercial establishments in the city accept aluminum, scrap metal, car batteries, rechargeable batteries and tires. The county transfer station accepts tires, car batteries, used motor oil, antifreeze and old appliances.

According to the “1999 State of Arizona Recycling Program Annual Report” prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Douglas recycles the following materials:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Newspaper	101.50	253.75
Cardboard	142.85	380.93
Other Paper	9.23	23.06
Green/Wood	100.00	133.33
Yard Waste	100.00	133.33
Holiday Trees	6.99	9.35
Aluminum	5.00	40.00
Steel	.75	2.68
#1 PET and #2 HDPE Plastics	3.00	16.90
Glass	2.00	1.43
<b>TOTAL DIVERTED</b>	<b>471.32</b>	<b>994.76</b>

The 1999 report relates that Douglas has a diversion rate of 4.08%. (Data based on FY 1996 figures reports the diversion rate to be 0.00%, so diversion rates have increased dramatically in three years.) No operational costs or revenues for its recycling program or avoided costs were reported by Douglas in FY 1999.

A 2002 update of this report shows that Douglas now recycles the following:

<b>Material</b>	<b>Tons</b>	<b>% VOL</b>
Newspaper	18.11	0.01246
Cardboard	1,168.00	80.36082
Office Paper	13.20	0.908187
Yard Waste	180.00	12.38437
HHW Collections	15.88	1.092577
Paint	0.01	0.001011
Dog Food reuse	1.26	0.086587
Passenger Tires	48.41	3.33075
Truck Tires	8.41	0.578515
OTR Tires	0.16	0.011173
Total Diverted	1,453.44	100%

## Eagar

Eagar is a Mormon community located in eastern Arizona near the New Mexico border. Its 1999 population was 4,910. Eagar and the adjacent community of Springerville essentially function as one place economically. Ranching has always been important in the region, and hay is grown along the Little Colorado River. Eagar is in the center of the White Mountain Recreation Area, and tourism also contributes a great deal to the local economy. However, today the most important employers in the region are the Springerville Generating Station, the Coronado Generating Station in nearby St. Johns, a regional hospital, the school district, and several government agencies, especially the U.S. Forest Service. Until recent layoffs occurred, the Abitibi sawmill was also an important force in the local economy.

Eagar's population is approximately 83% white. Households are fairly large with an average of 3.33 persons, and the population age 65 or older is only 6.3%. Only 36% of its workers are employed within the city limits, with many people commuting to jobs at the power plant as well as to neighboring Springerville. At 67%, Eagar has one of the highest labor force participation rates in the state. The population is well educated, and the median household income is very high. Over 82% of the occupied housing units in the community are owner-occupied.

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Eagar's economy is most like the community of Patagonia. A waste characterization study performed in Patagonia indicates that Eagar can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Eagar generates 2,914.26 tons of solid waste per year. By weight, almost 20% of the waste is paper, newspaper, cardboard and magazines, about 7% is plastic, 8% is glass and 4% is metal. Wood and construction/ demolition materials together account for slightly over 2% of the solid waste. Yard and food waste make up over 30% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

Springerville Auto Wreckers collects cardboard from three locations in Eagar. The Town of Eagar accepts household quantities (5 gallons or less) of used motor oil used in heaters at its Public Works Shop.

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	30.62%	892.35	45.18%	19,804.11	9,902.06
Plastic	6.73%	196.13	22.34%	9,792.47	4,896.24
Glass	7.88%	229.64	2.85%	1,249.26	624.63
Metal	3.43%	99.96	4.23%	1,854.17	927.08
Food/Organics	31.83%	927.61	12.21%	5,352.11	2,676.05
Wood	.40%	11.66	.18%	78.90	39.45
Constr./Demo.	1.82%	53.04	1.24%	543.54	271.77
Other	17.29%	503.88	11.77%	5,159.24	2,579.62
<b>TOTAL</b>	<b>100%</b>	<b>2,914.26</b>	<b>100%</b>	<b>43,833.80</b>	<b>21,916.90</b>

## Eloy

Eloy is located in central Arizona halfway between Tucson and Phoenix along Interstate 10. In 1999, its population was 10,610. Throughout this century, agriculture has dominated the economy and landscape in and around Eloy. More than 100,000 acres in the surrounding valley produce cotton, vegetables, grains and citrus. Cattle ranching is also important to the area. Recently, many manufacturers have located in Eloy to take advantage of its proximity to key transportation corridors and markets. Currently, manufacturing is the dominant employment sector in Eloy.

Over 65% of Eloy's population is Hispanic. However, there are significant numbers of whites, blacks and Native Americans as well. Almost 90% of Eloy's residents in 1990 had lived within Pinal County in 1985. Approximately 15% of the population is foreign-born. Less than half of the population age 18 and over holds a high school diploma, and only 5% have a college degree. Over 25% of households receive social security income. Although the median household income is modest, many people in Eloy live below the poverty level.

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Eloy's economy is most like the community of Casa Grande. A waste characterization study performed in Casa Grande indicates that Eloy can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Eloy generates 5,847.16 tons of solid waste per year. By weight, about 15% of the waste is recyclable paper, newspaper, cardboard and magazines, over 9% is plastic, 6% is glass and almost 3% is metal. Wood and construction/ demolition materials together account for almost 5% of the solid waste. Yard and food waste make up over 27% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at \_\_\_\_\_. For detailed information on the parameters of data used to arrive at these figures, please click on \_\_\_\_\_.

There are no drop-off locations in Eloy at the present time. Eloy can design a recycling program around the estimated quantities of these materials. There are strong markets in Arizona for cardboard, newspaper, aluminum cans, magazines and mixed paper. These are the materials that can be most easily collected and marketed in a rural community. Even though other materials in the table above can be recycled, they are not economic because of processing costs, transportation costs and low prices. Yard waste can also be reused by chipping it into mulch or turning it into compost to be used in city parks, given to residents, or sold.

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	29.01%	1,696.26	34.80%	32,667.96	16,333.98
Plastic	9.29%	543.20	30.23%	28,377.94	14,188.97
Glass	6.12%	357.85	2.02%	1,896.24	948.12
Metal	2.59%	151.44	3.81%	3,576.58	1,788.29
Food/Organics	27.89%	1,630.77	11.76%	11,039.52	5,519.76
Wood	1.30%	76.01	.90%	844.86	422.43
Constr./Demo.	3.62%	211.67	1.70%	1,595.85	797.92
Other	20.18%	1,179.96	14.78%	13,874.50	6,937.25
<b>TOTAL</b>	<b>100.00%</b>	<b>5,847.16</b>	<b>100.00%</b>	<b>93,873.45</b>	<b>46,936.73</b>

## Flagstaff

Flagstaff is located along old Route 66 and is the largest city and regional center of northern Arizona. Its population in 1999 was 60,880. It is the county seat for Coconino County and is the second largest county in the United States with 12,000,000 acres. Many Arizonans maintain second homes in this community, and it is a year-round mecca for visitors outside the state. Flagstaff has long been a transportation hub. The community began after the railroad arrived in 1881. Today the town links I-40 to I-17, Highway 89 to Page and Utah, and Highway 180 to the Grand Canyon. Flagstaff is a governmental, education, transportation, cultural and commercial center. Tourism is a major source of employment. Traditional economic activities such as lumber, railroad and cattle, continue to employ many people. New scientific and high-tech research and development industries have recently located in Flagstaff.

Race

% working population employed within city limits

Income levels

% households receiving social security income, retirement, and interest, dividends and rental incomes

% of occupied housing units mobile homes or trailers

Median home value

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Flagstaff's economy is most like the community of Williams. A waste characterization study performed in Williams indicates that Flagstaff can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Flagstaff generates 39,183.95 tons of solid waste per year. By weight, almost 37% of the waste is recyclable paper, newspaper, cardboard and magazines, about 4% is plastic, 5% is glass and 2% is metal. Wood and construction/demolition materials together account for almost 8% of the solid waste. Yard and food waste make up over 28% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	45.00%	17,632.78	24.21%	64,151.01	32,075.50
Plastic	4.17%	1,633.97	25.49%	67,542.72	33,771.36
Glass	4.60%	1,802.46	3.85%	10,201.63	5,100.81
Metal	1.77%	693.56	6.20%	16,428.59	8,214.30
Food/Organics	28.69%	11,241.88	24.36%	64,548.48	32,274.24
Wood	.73%	286.04	1.75%	4,637.10	2,318.55
Constr./Demo.	6.75%	2,644.92	3.23%	8,558.77	4,279.38
Other	8.29%	3,248.35	10.91%	28,909.03	14,454.51
<b>TOTAL</b>	<b>100.00%</b>	<b>39,183.95</b>	<b>100.00%</b>	<b>264,977.32</b>	<b>132,488.66</b>

### **Recycling**

The City of Flagstaff operates a curbside recycling program. Norton Environmental, a materials recovery facility, is located in Flagstaff and processes all the recyclables from the curbside recycling program. From the curbside recycling program, Norton accepts newspaper, mixed paper, cardboard, chipboard, aluminum cans, scrap metals, #1 PET plastics, #2 HDPE plastics, magazines, and post office mail. Glass can be dropped off at Norton Environmental. The Cinder Lakes Landfill acts as a drop-off location for the same recyclables as the curbside program and glass. Commercial establishments in Flagstaff accept glass, plastic bags and rechargeable batteries. Several auto stores accept used oil and car batteries. A radiator shop accepts used antifreeze, and R & R Recycling accepts scrap metal.

Northern Arizona University, located in Flagstaff, accepts white ledger paper, color ledger paper, newspaper, magazines, catalogues, cardboard, aluminum cans, #1 PET plastics and #2 HDPE plastics, and glass. Collection bins are placed in college departments for paper, magazines and catalogues, drop-off containers are in place throughout the campus for cardboard and aluminum cans, and plastics and glass can be dropped off at the Recycling Center at Building 84.

According to the “1999 State of Arizona Recycling Program Annual Report” prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Flagstaff recycles the following materials:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Newspaper	706.87	1,767.18
Cardboard	673.66	1,796.43
Office Paper	700.69	1,751.73
Other Paper	226.89	567.23
Holiday Trees	26.31	35.16
Aluminum	37.88	303.04
Steel	360.59	1,287.82
Other Metals	258.82	895.08
#1 PET Plastics	25.48	143.55
#2 HDPE Plastics	51.03	287.49
Glass	98.69	70.49
Household Hazardous Waste	27.40	38.07
Miscellaneous*	1.24	.89
<b>TOTAL DIVERTED</b>	<b>3,195.55</b>	<b>8,944.16</b>

\*Miscellaneous includes used tires, mattresses, box springs, asphalt, wire, cable, textiles, other fiber, toner cartridges, transparencies, construction debris, fluorescent light bulbs, carpet foam, decals, garbage cans and lawnmowers.

The 1999 report relates that Flagstaff had a diversion rate of 9.47%. (Data based on FY 1996 figures estimated the diversion rate to be 1.94%, so diversion rates have increased dramatically in three years.) The operational costs for its recycling program reported by Flagstaff in FY 1999 were \$1,000,702. Revenues were reported as being \$42,000 received by the recycling program. Avoided costs were estimated to be \$7,845.39.

According to the 2002 update of these figures, in FY 2002 Flagstaff recycled the following materials:

<b>Materials</b>	<b>Tons</b>	<b>% Vol</b>
Newspaper	356.27	4.354807
Cardboard	4,717.41	57.66247
Other Paper	1,603.23	19.59681
Christmas Trees	5.33	0.065089
Aluminum	44.53	0.544305
Steel	178.14	2.177464
White Goods	757.08	9.254041
PET	44.53	0.544305
HDPE	89.06	1.08861
Glass	338.50	4.137598
Misc.	47.00	0.574497
<b>Total Diverted</b>	<b>8,181.08</b>	<b>100</b>

## **Florence**

Florence is a town located in Pinal County in central Arizona. In 1999, its population was 14,470, many of whom are state prisoners. It has been the Pinal County seat since 1877. Agriculture has always been important in the area surrounding Florence, and its products include cotton, grains and grapes. However, its economy today is almost entirely dependent on the government sector. The Arizona State Prison employs about 1,700 and Pinal County employs 1,500 people. Located in a beautiful area halfway between Phoenix and Tucson with mild winters, retirement is becoming increasingly important, as is tourism. Many people driving their recreational vehicles stay in the area during the winter season.

Florence is a racially diverse place. Fifty-four percent of the population is white, 31% is Hispanic, 9% is black, and 4% is Native American (these figures and some of those that follow include prisoners). Due to the prison, the average household size is very large. The prisoners come from all over the state. For this reason, only 56% of 1990 residents lived in Pinal County in 1985. However, over 80% of the workers in the community are employed within the town limits. At 19.7%, the labor force participation rate is the lowest in the state, again due to the presence of the prison. Levels of education are moderate, and incomes are fairly high. Over 40% of households receive social security income and 25% have retirement income. Almost 33% of the occupied housing units in Florence are mobile homes or trailers.

### **Waste Stream Characterization**

Based on the structure of the local economy and labor force characteristics from the report “A Description and Typology of Selected Arizona Places” prepared by the University of Arizona, Florence’s economy is most like the community of Casa Grande. A waste characterization study performed in Casa Grande indicates that Florence can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Florence generates 4,949.14 tons of solid waste per year. By weight, about 15% of the waste is recyclable paper, newspaper, cardboard and magazines, over 9% is plastic, 6% is glass and almost 3% is metal. Wood and construction/ demolition materials together account for almost 5% of the solid waste. Yard and food waste make up over 27% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at \_\_\_\_\_. For detailed information on the parameters of data used to arrive at these figures, please click on \_\_\_\_\_.

<b>MATERIAL</b>	<b>% WT</b>	<b>TONS/YR</b>	<b>% VOL</b>	<b>UNCOMPR. CU. YD/YR</b>	<b>COMPR. CU. YD/YR</b>
Paper	29.01%	1,435.75	34.80%	27,650.79	13,825.39
Plastic	9.29%	459.78	30.23%	24,019.64	12,009.82
Glass	6.12%	302.89	2.02%	1,605.02	802.51
Metal	2.59%	128.18	3.81%	3,027.28	1,513.64
Food/Organics	27.89%	1,380.32	11.76%	9,344.06	4,672.03
Wood	1.30%	64.34	.90%	715.11	357.55
Constr./Demo.	3.62%	179.16	1.70%	1,350.76	675.38
Other	20.18%	998.74	14.78%	11,743.64	5,871.82
<b>TOTAL</b>	<b>100.00%</b>	<b>4,949.14</b>	<b>100.00%</b>	<b>79,456.29</b>	<b>39,728.14</b>

### **Recycling**

The Pinal County Recycling and Waste Tire Collection Center is the one drop-off location for recyclables in Florence. It accepts newspaper, magazines, books, catalogues, phone books, writing papers, envelopes, post office mail, cardboard, tin cans and aluminum cans.

According to the "1999 State of Arizona Recycling Program Annual Report" prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Florence recycles the following materials:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Office Paper	4.80	12.00
Other Paper	.60	1.50
Green/Wood	168.42	224.00
Other Metals	54.00	192.86
Household Hazardous Waste	1.62	2.48
Miscellaneous*	2.50	37.41
<b>TOTAL DIVERTED</b>	<b>231.94</b>	<b>470.25</b>

\*Miscellaneous includes used tires, mattresses, box springs, asphalt, wire, cable, textiles, other fiber, toner cartridges, transparencies, construction debris, fluorescent light bulbs, carpet foam, decals, garbage cans and lawnmowers.

The 1999 report relates that Florence had a diversion rate of 2.53%. (Data based on FY 1996 figures estimated the diversion rate to be 33.21%, so diversion rates have fallen dramatically in three years.) No operational costs for its recycling program were reported by Florence in FY 1999. Revenues were reported as being \$537.45 received by the recycling program. Avoided costs were estimated to be \$17,200.

According to a FY 2002 update of this data, Florence recycled the following in FY 2002:

<b>Material</b>	<b>TONS/YR</b>	<b>% VOL</b>
Newspaper	12.16	2.182251
Cardboard	357.73	64.19908
Office Paper	99.71	17.89445
Green/Wood	72.14	12.94686
Christmas Trees	0.78	0.140578
Aluminum	0.64	0.115708
Steel	11.00	1.974075
PET/HDPE	0.40	0.071785
HHW Collections	1.06	0.189867
Misc.	1.59	0.285344
Total Diverted	557.22	100%

## Fredonia

Fredonia is located in the Arizona Strip, which is a portion of Arizona between the Grand Canyon and Utah. Fredonia is four miles south of the Utah-Arizona border and is Arizona's northern-most community. The area has remained relatively unspoiled by urbanization because the Grand Canyon effectively cuts the Arizona Strip off from the rest of the state. Its population in 1999 was 1,420. It was founded by Mormon settlers in 1865 and was incorporated in 1956. Tourism and agriculture are big industries, but the dominant economic activity in Fredonia is manufacturing. Logging and cabinet making, in particular, are important.

There is substantial cross-commuting between Fredonia and Kanab, Utah. In fact, less than half of Fredonia's employed people work in Fredonia. Its population is largely white and there are few people of retirement age. Substantial numbers of people moved into Fredonia from Utah between 1985 and 1990. Participation in the labor force is high (67.2%) and residents are well educated. Over 33% of the housing units are mobile homes or trailers.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Fredonia's economy is most like the community of Casa Grande. A waste characterization study performed in Casa Grande indicates that Fredonia can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Fredonia generates 870.87 tons of solid waste per year. By weight, about 15% of the waste is recyclable paper, newspaper, cardboard and magazines, over 9% is plastic, 6% is glass and almost 3% is metal. Wood and construction/ demolition materials together account for almost 5% of the solid waste. Yard and food waste make up over 27% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at \_\_\_\_\_. For detailed information on the parameters of data used to arrive at these figures, please click on \_\_\_\_\_.

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	29.01%	252.64	34.80%	4,865.56	2,432.78
Plastic	9.29%	80.90	30.23%	4,226.60	2,113.30
Glass	6.12%	53.30	2.02%	282.43	141.21
Metal	2.59%	22.56	3.81%	532.69	266.35
Food/Organics	27.89%	242.89	11.76%	1,644.22	822.11
Wood	1.30%	11.32	.90%	125.83	62.92
Constr./Demo.	3.62%	31.53	1.70%	237.69	118.84
Other	20.18%	175.74	14.78%	2,066.46	1,033.23
TOTAL	100.00%	870.87	100.00%	13,981.49	6,990.74

**Recycling**

There are no drop-off locations in Fredonia at the present time. Fredonia can design a recycling program around the estimated quantities of these materials. There are strong markets in Arizona for cardboard, newspaper, aluminum cans, magazines and mixed paper. These are the materials that can be most easily collected and marketed in a rural community. Even though other materials in the table above can be recycled, they are not economic because of processing costs, transportation costs and low prices. Yard waste can also be reused by chipping it into mulch or turning it into compost to be used in city parks, given to residents, or sold.

According to FY 2002 numbers, Fredonia now recycles .88 tons of Christmas trees a year. That is the only material it recycled in that fiscal year.

## Globe/Miami

Globe is located only four miles from Miami, and essentially they function together as one economic system. Globe was incorporated in 1907 and had a population of 8,080 in 1999. Although mining and smelting dominate both the landscape and the economy, tourism is also an important force in the area. At 39.5%, Globe has a smaller non-white population than Miami and many of the other mining places. In addition, almost 20% of its population is age 65 or over. Approximately 30% of Globe's households have social security income, and 20% receive retirement income. Over half of its workers are employed within the city limits and income levels are high.

Miami was incorporated in 1919. Since 1940, it has actually seen its population decline from almost 5,000 to just 2,045 in 1999. Copper mining, smelting, and rod production are the dominant economic activities in Miami. A majority of Miami's population (62%) is Hispanic. It has a fairly low labor force participation rate of 48%. Almost 40% of households in Miami have social security income. As with the other mining places, educational levels and home values are low. However, unlike other mining communities, income levels in Miami are not very high either.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Globe/Miami's economy is most like the mining community of Hayden. A waste characterization study performed in Hayden indicates that Globe/Miami can expect to generate the materials in its waste stream listed in the table below.

It is estimated that the Globe/Miami area generates 4,075.02 tons of solid waste per year. By weight, approximately 10% of the waste is recyclable paper, newspaper, cardboard and magazines, about 11% is plastic, 7% is glass, and 6% is metal. Wood and construction/demolition materials together account for over 4% of the solid waste. Yard and food waste account for over 31% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	24.56%	1,000.82	41.07%	33,974.40	16,987.20
Plastic	11.23%	457.62	34.85%	28,829.02	14,414.51
Glass	6.64%	270.58	1.70%	1,406.29	703.15
Metal	5.54%	225.76	6.77%	5,600.36	2,800.18
Food/Organics	31.27%	1,274.26	5.62%	4,649.04	2,324.52
Wood	.43%	17.52	.16%	132.36	66.18
Constr./Demo.	3.99%	162.59	.87%	719.69	359.85
Other	16.34%	665.86	8.96%	7,412.00	3,706.00
TOTAL	100.00%	4,075.02	100.00%	82,723.16	41,361.58

**Recycling:**

The Globe/Miami area has several drop-off locations for recyclables. Two commercial stores in Globe accept newspaper, and a Wal-Mart accepts plastic bags. The Miami Recycling Center accepts aluminum cans, cardboard, brass and copper. Two auto stores in Globe accept used motor oil, and one accepts car batteries. The Gila County Landfill in Globe accepts car batteries, motor oil, trees, tires and scrap metal. The Russell Gulch Landfill between Globe and Miami accepts metal, tires, and appliances.

In FY 2002 Globe/Miami recycled 4.17 tons of Christmas trees.

## **Hayden**

Hayden was founded in 1909 and incorporated in 1956. Its current population of about 900 is down from a high of 1,760 in 1960. Hayden has always been a mining town, but most of its miners now work at the huge Ray mine 25 miles to the northwest. The community is trying to diversify its economic base to attract tourists and retirees. Nearby areas along the Gila and San Pedro Rivers are distinctly agricultural in character.

Hayden is almost 85% Hispanic. Over 90% of its 1990 residents had lived in Pinal County in 1985. It has a low labor force participation rate and low education levels. Almost 40% of Hayden's households receive social security income. Unlike many other mining places, its income levels are low. In addition, Hayden's median home value is among the lowest in the state.

## Holbrook

Holbrook is a city located in northeastern Arizona along the Little Colorado River. Its population in 1999 was 5,645. Holbrook is an important trade center for northeastern Arizona. Its location on historic Route 66 and on Interstate 40 at the junction of four major highways makes tourism important to the local economy. As the county seat of Navajo County and the location of several state and federal offices, government employment is also very important. Many people work in the construction trades. The Cholla Power Plant located just outside of town employs about 250 people.

Holbrook is an ethnically diverse place. About 54% of the population is white, 22% is Hispanic, 20% is Native American, and 3% is black. Less than 9% of its residents are age 65 or over. Almost 75% of its workers are employed within the city limits. Education and income levels are high. At 68.5%, the labor force participation is one of the highest in the state. More than 25% of the city's occupied housing units are mobile homes or trailers.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Holbrook's economy is most like the community of Willcox. A waste characterization study performed in Willcox indicates that Holbrook can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Holbrook generates 2,268.55 tons of solid waste per year. By weight, approximately 16% of the waste is recyclable paper, newspaper, cardboard and magazines, about 10% is plastic, 5% is glass, and 5% is metal. Wood and construction/demolition materials together account for slightly over 2% of the solid waste. Yard and food waste account for over 36% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	25.90%	587.55	39.52%	12,054.34	6,027.17
Plastic	8.10%	183.75	27.67%	8,439.87	4,219.93
Glass	6.28%	142.46	3.64%	1,110.27	555.13
Metal	4.63%	105.03	6.71%	2,046.68	1,023.34
Food/Organics	36.50%	828.02	10.70%	3,263.70	1,631.85
Wood	.55%	12.48	.24%	73.20	36.60
Constr./Demo.	1.59%	36.07	.31%	94.56	47.28
Other	16.45%	373.18	11.21%	3,419.26	1,709.63
TOTAL	100%	2,268.55	100%	30,501.87	15,250.93

## Recycling

There are three drop-off locations in Holbrook for recyclables. F & M Recycling accepts aluminum cans, cardboard, glass, newspaper, white office paper, copper, scrap and cast aluminum, brass, copper radiators, and car batteries. Kachina Auto Salvage accepts scrap iron. The Holbrook Transfer Facility accepts tires, white goods and scrap metal.

According to the “1999 State of Arizona Recycling Program Annual Report” prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Holbrook recycles the following materials:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Green/Wood	1.00	1.33
Yard Waste	4.00	5.33
Holiday Trees	.87	1.17
Steel	12.00	42.86
Household Hazardous Waste	1.46	2.23
Miscellaneous*	3.13	22.73
<b>TOTAL DIVERTED</b>	<b>22.46</b>	<b>75.65</b>

\*Miscellaneous includes used tires, mattresses, box springs, asphalt, wire, cable, textiles, other fiber, toner cartridges, transparencies, construction debris, fluorescent light bulbs, carpet foam, decals, garbage cans and lawnmowers.

The 1999 report relates that Holbrook has a diversion rate of .85%. (Data based on FY 1996 figures estimates the diversion rate to be 5.80%, so diversion rates have fallen dramatically in three years.) Operational costs for Holbrook’s recycling program were reported at \$30,000. Revenues for its recycling program were \$800. Avoided costs were estimated to be \$5,000 in FY 1999.

According to a 2002 update of these figures, in FY 2002 Holbrook recycled the following materials:

<b>Holbrook</b>	<b>Tons/YR</b>	<b>% Vol</b>
Christmas Trees	1.88	18.43297
HHW Collections	2.55	25.03926
Misc.	5.75	56.52777
Total Diverted	10.17	100%

## Kingman

Kingman is a city of 20,000 in the Hualapai Valley of northwestern Arizona. It was established in the 1880s with the construction of the Santa Fe Railroad. It was incorporated in 1952 and has served as the county seat of Mohave County since 1887. Its economy is very diversified. It serves as the trade and service center for much of the northwestern part of the state, and retail and services are the largest sectors in terms of total employment. However, Kingman's strategic location, near Las Vegas, Los Angeles, Phoenix, and the Grand Canyon, and on Interstate 40 and the Santa Fe Railroad, have made it a prime spot for manufacturers, distributors, and transportation firms, as well as for tourism. Employment is also significant in the construction, utility and finance, insurance and real estate sectors.

Kingman's population is over 90% white. Households are fairly small, averaging 2.56 people per household. About 17% of its residents are age 65 or over. Many of Kingman's residents have moved into town recently. Only about 65% of the 1990 population lived in Mohave County in 1985. Over 70% of its workers are employed within the city limits. Levels of education and income are very high. About 40% of all households have interest, dividend, or net rental income, and about 33% of households receive social security income. The median home value in Kingman is moderately high.

### Waste Stream Characterization

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Kingman's economy is most like the community of Parker. A waste characterization study performed in Parker indicates that Kingman can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Kingman generates 15,498.24 tons of solid waste per year. By weight, almost 7% of the waste is recyclable paper, newspaper, cardboard and magazines, about 6% is plastic, 6% is glass and 3% is metal. Wood and construction/ demolition materials together account for slightly over 8% of the solid waste. Yard and food waste make up over 53% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	13.75%	2,131.01	26.05%	44,907.56	22,453.78
Plastic	5.87%	909.75	23.37%	40,287.51	20,143.76
Glass	5.55%	860.15	2.50%	4,309.75	2,154.87
Metal	2.85%	441.70	5.12%	8,826.36	4,413.18
Food/Organics	53.17%	8,240.41	35.56%	61,301.83	30,650.92
Wood	.60%	92.99	.29%	499.93	249.97
Constr./Demo.	7.69%	1,191.81	1.23%	2,120.40	1,060.20
Other	10.52%	1,630.41	5.87%	10,119.28	5,059.64
TOTAL	100%	15,498.24	100%	172,389.85	86,194.93

**Recycling**

Kingman Recycling currently accepts newspaper, cardboard, magazines, catalogues, aluminum cans and clear glass. One auto store in town accepts used motor oil and car batteries. FY 2002 data shows that Kingman recycled 5.83 tons of Christmas trees that fiscal year.

## Lake Havasu City

Lake Havasu City is located on the eastern shore of Lake Havasu, a dammed portion of the Colorado River. The McCulloch Corporation established it in 1963 as a self-sufficient, planned community. Since that time, it has seen phenomenal growth. Its population in 1999 was 41,045. Tourism has always been big business in Lake Havasu City. Hundreds of thousands of people annually come to see the London Bridge, the shops and restaurants, and the lake. Construction and manufacturing are very important economic sectors. Two of the largest employers are McCulloch Corporation, the city's founding company, and Sterilite Corporation, a manufacturer of plastic houseware products. Many watercraft and boat manufacturers are also located in Lake Havasu City.

Lake Havasu City's population is almost entirely white (95%). Almost 24% of its residents are of retirement age. Households, in general, are small, averaging 2.43 people per household. Only 57% of its 1990 workers are employed within the city limits. Residents are fairly well educated. Incomes and home values are among the highest in the state. Forty-seven percent of all households receive interest, dividend, or net rental income, and 42% of households have social security income. Less than 4% of the occupied housing units in Lake Havasu City are mobile homes or trailers.

### WASTE STREAM CHARACTERIZATION

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Lake Havasu City's economy is most like the community of Parker. A waste characterization study performed in Parker indicates that Lake Havasu City can expect to generate the materials in its waste stream listed in the table below.

It is estimated that Lake Havasu City generates 33,507.84 tons of solid waste per year. By weight, almost 7% of the waste is recyclable paper, newspaper, cardboard and magazines, about 6% is plastic, 6% is glass and 3% is metal. Wood and construction/demolition materials together account for slightly over 8% of the solid waste. Yard and food waste make up over 53% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	13.75%	4,607.33	26.05%	97,091.98	48,545.99
Plastic	5.87%	1,966.91	23.37%	87,103.25	43,551.63
Glass	5.55%	1,859.69	2.50%	9,317.85	4,658.92
Metal	2.85%	954.97	5.12%	19,082.95	9,541.48
Food/Organics	53.17%	17,816.12	35.56%	132,537.08	66,268.54
Wood	.60%	201.05	.29%	1,080.87	540.44
Constr./Demo.	7.69%	2,576.75	1.23%	4,584.38	2,292.19
Other	10.52%	3,525.02	5.87%	21,878.31	10,939.15
TOTAL	100%	33,507.84	100%	372,713.95	186,356.98

## Recycling

Lake Havasu City has a few drop-off locations for recyclables. River Cities Waste Services accepts newspaper, cardboard, aluminum cans, #1 PET plastic, #2 HDPE plastic, and glass. Commercial establishments in town accept aluminum cans, scrap metal, used motor oil and car batteries.

According to the "1999 State of Arizona Recycling Program Annual Report" prepared by the Arizona Department of Environmental Quality using FY 1999 figures, Lake Havasu City recycles the following materials:

<b>MATERIAL</b>	<b>TONS</b>	<b>CUBIC YARDS</b>
Newspaper	917.52	2,203.80
Cardboard	378.78	1,010.08
Other Paper	19.79	49.48
Holiday trees	8.88	11.87
Aluminum	30.13	241.04
Steel	53.97	192.75
#1 PET and #2 HDPE Plastics	82.84	466.70
Glass	264.49	188.92
Household Hazardous Waste	18.90	28.82
<b>TOTAL DIVERTED</b>	<b>1,775.30</b>	<b>4,483.46</b>

The report relates that Lake Havasu City has a diversion rate of 6.54%. (Data based on FY 1996 figures estimates the diversion rate to be 3.84%, so diversion rates have increased in three years.) The operational costs for its recycling program reported by Lake Havasu City in FY 1999 were \$192,000. Revenues received by the recycling program were \$117,914. Avoided costs were estimated at \$44,475.20.

A fiscal year 2002 update of this data shows that in FY 2002 Lake Havasu City recycled the following:

<b>Materials</b>	<b>Tons/YR</b>	<b>% VOL</b>
Newspaper	934.60	12.11714
Cardboard	639.30	8.28856
Christmas Trees	8.33	0.108042
Aluminum	30.60	0.396731
Steel	688.50	8.92644
PET	28.00	0.363022
HDPE	65.30	0.846618
Glass	273.50	3.545943
HHW	27.51	0.356636
Misc.	5,017.40	65.05087
<b>Total Diverted</b>	<b>7,713.04</b>	<b>100%</b>

## Marana

Marana is located one mile north of Tucson with a population in 1999 of 12,350. The Marana area has been prime farmland for centuries. Native Americans used to grow corn, beans, squash and cotton. The first cattle ranches were started by the Spanish around 1700. Marana was incorporated in 1977, and it now blends its traditional agricultural economy with residential, commercial and industrial development. Cement production at a plant in Rillito, just south of Marana, supplies a number of mines. Some employment is available in mines in the Silverbell district to the west and the San Manuel copper mines and smelter to the east. In addition, the Pinal Air Park (Evergreen), located just north of Marana, provides substantial employment repairing and servicing aircraft. Marana also is home to Arizona's first privatized correctional treatment facility which employs more than 100 people.

### Race

% working population employed within city limits

### Income levels

% households receiving social security income, retirement, and interest, dividends and rental incomes

% of occupied housing units mobile homes or trailers

Median home value

Based on the structure of the local economy and labor force characteristics from the report "A Description and Typology of Selected Arizona Places" prepared by the University of Arizona, Marana's economy is most like the community of Casa Grande. A waste characterization study performed in Casa Grande indicates that Marana can expect to generate the materials in its waste stream listed in the table below.

## Waste Stream Characterization

It is estimated that Marana generates 9,221.96 tons of solid waste per year. By weight, about 15% of the waste is recyclable paper, newspaper, cardboard and magazines, over 9% is plastic, 6% is glass and almost 3% is metal. Wood and construction/ demolition materials together account for almost 5% of the solid waste. Yard and food waste make up over 27% of the waste. For a complete breakdown of the material categories of solid waste, please click on the waste sort data sheet at [\\_\\_\\_\\_\\_](#). For detailed information on the parameters of data used to arrive at these figures, please click on [\\_\\_\\_\\_\\_](#).

MATERIAL	% WT	TONS/YR	% VOL	UNCOMPR. CU. YD/YR	COMPR. CU. YD/YR
Paper	29.01%	2,675.29	34.80%	51,522.95	25,761.47
Plastic	9.29%	856.72	30.23%	44,756.86	22,378.43
Glass	6.12%	564.38	2.02%	2,990.70	1,495.35
Metal	2.59%	238.85	3.81%	5,640.87	2,820.44
Food/Organics	27.89%	2,572.00	11.76%	17,411.20	8,705.60
Wood	1.30%	119.89	.90%	1,332.49	666.24
Constr./Demo.	3.62%	333.83	1.70%	2,516.93	1,258.46
Other	20.18%	1,860.99	14.78%	21,882.45	10,941.22
TOTAL	100.00%	9,221.96	100.00%	148,054.44	74,027.22

## Recycling

The only drop-off location for any recyclable in Marana is the Autozone store that accepts used motor oil. Marana can design a recycling program around the estimated quantities of these materials. There are strong markets in Arizona for cardboard, newspaper, aluminum cans, magazines and mixed paper. These are the materials that can be most easily collected and marketed in a rural community. Even though other materials in the table above can be recycled, they are not economic because of processing costs, transportation costs and low prices. Yard waste can also be reused by chipping it into mulch or turning it into compost to be used in city parks, given to residents, or sold.

In FY 2002 it was reported that Marana recycled the following materials:

<b>Marana</b>	<b>Tons/YR</b>	<b>% VOL</b>
Newspaper	1,666.46	54.83382
Cardboard	754.91	24.83984
Office Paper	188.85	6.21399
Green/Wood	3.76	0.12372
Other Metals	120.74	3.972874
PET/HDPE	71.60	2.355953
Glass	171.83	5.653958
Unspecified	60.96	2.00585
Total Diverted	3,039.11	100